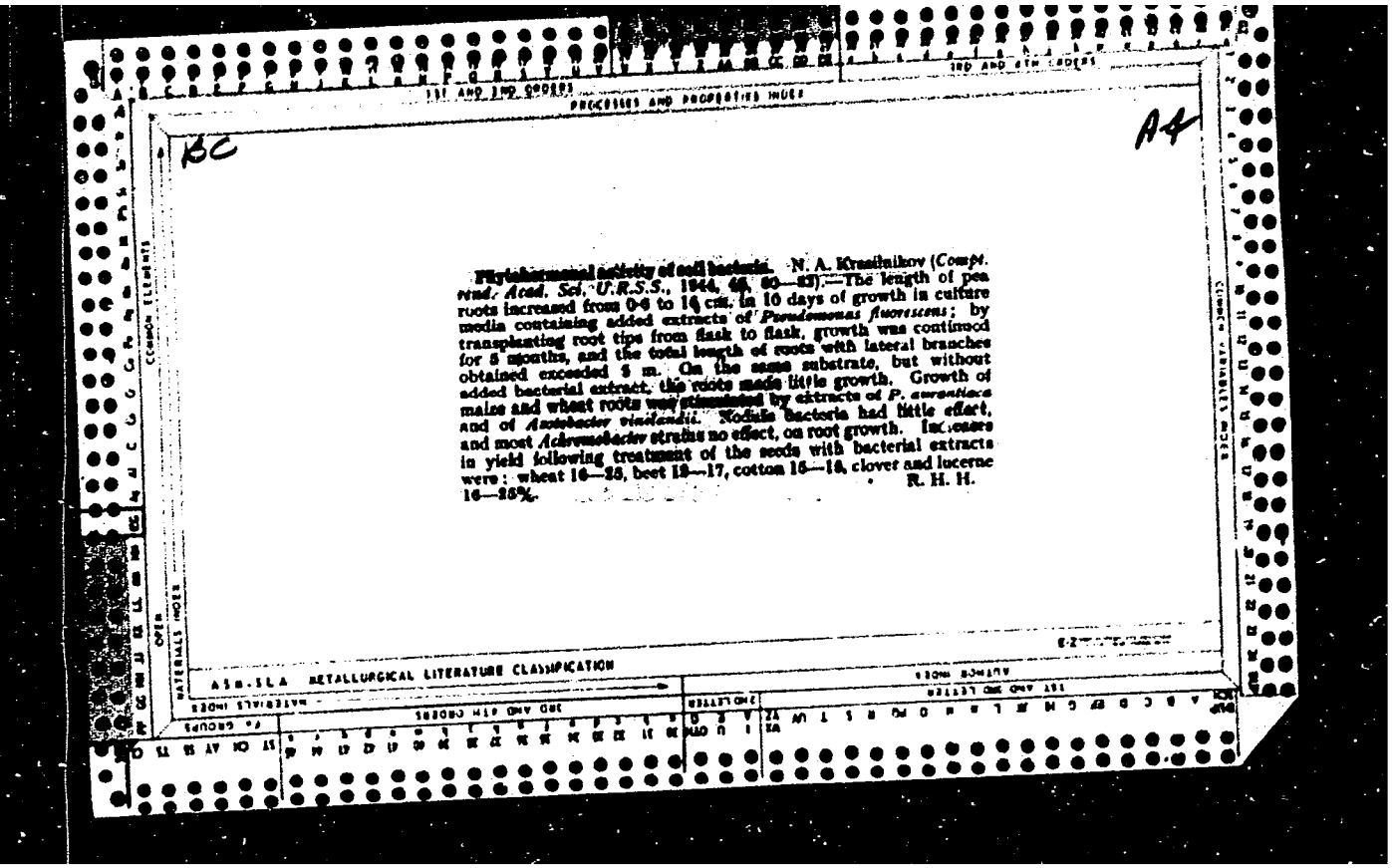
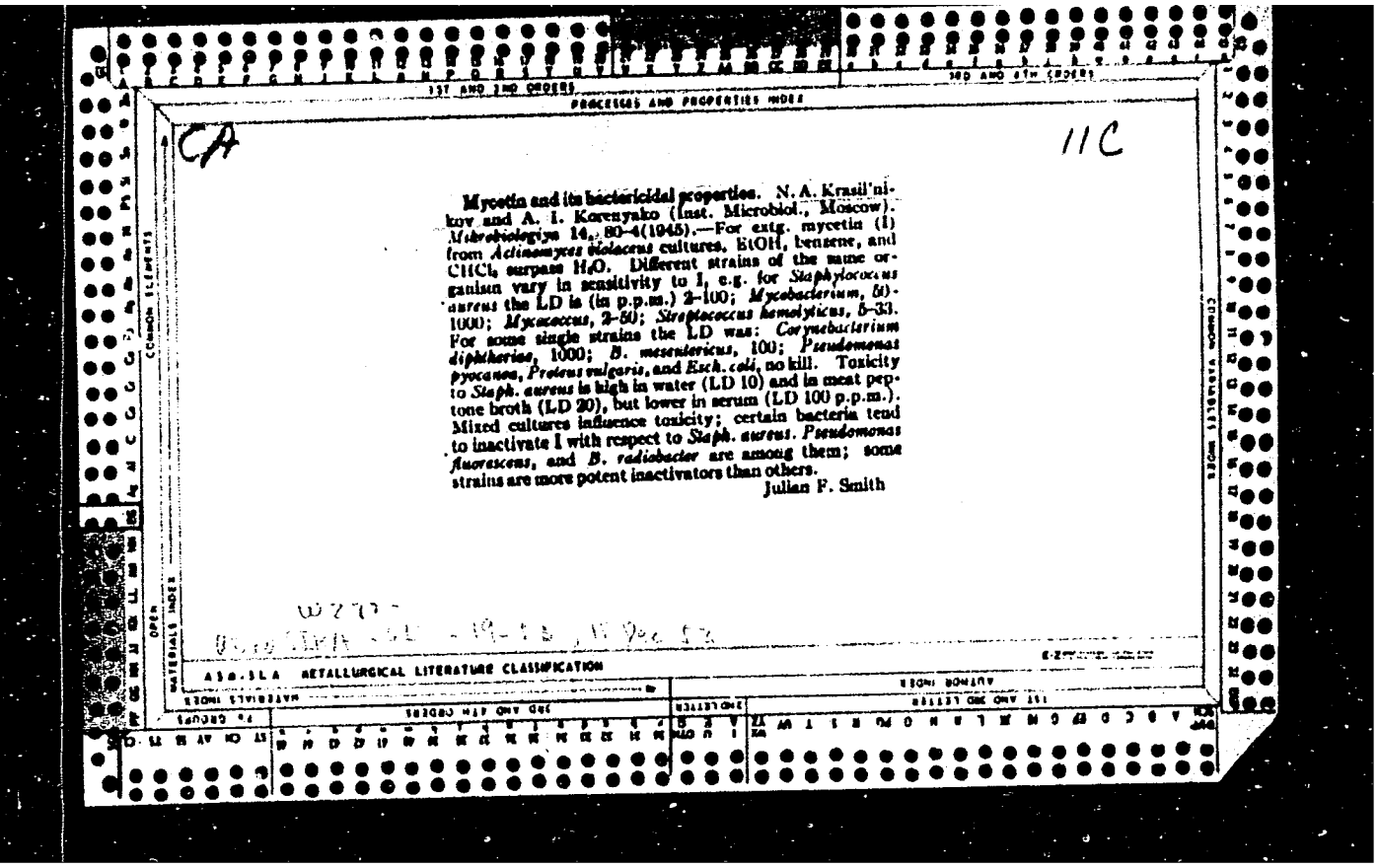


Phytohormonal activity of soil bacteria. N. A. Krasilnikov (*Compt. rend. Acad. Sci. U.R.S.S.*, 1944, 44, 83—85).—The length of pea roots increased from 0·6 to 14 cm. in 10 days of growth in culture media containing added extracts of *Pseudomonas fluorescens*; by transplanting root tips from flask to flask, growth was continued for 8 months, and the total length of roots with lateral branches obtained exceeded 5 m. On the same substrate, but without added bacterial extract, the roots made little growth. Growth of maize and wheat roots was stimulated by extracts of *P. aurantiaca* and of *Azotobacter vinelandii*. Nodule bacteria had little effect, and most *Achromobacter* strains no effect, on root growth. Increases in yield following treatment of the seeds with bacterial extracts were: wheat 16—25, beet 12—17, cotton 15—16, clover and lucerne 16—25%. R. H. H.

KRASIL'NIKOV, N. A.

"The Microbiological Foundations of Bacterial Fertilizers," Moscow-Leningrad, 1945



CA

11C

Mycetin and its bactericidal properties. N. A. Krasil'nikov and A. I. Korenyako (Inst. Microbiol., Moscow). *Mikrobiologiya* 14, 80–4(1945).—For extg. mycetin (I) from *Actinomyces violaceus* cultures, EtOH, benzene, and $CHCl_3$ surpass H_2O. Different strains of the same organism vary in sensitivity to I, e.g. for *Staphylococcus aureus* the LD is (in p.p.m.) 2–100; *Mycobacterium*, 50–1000; *Mycococcus*, 2–50; *Streptococcus hemolyticus*, 5–33. For some single strains the LD was: *Corynebacterium diphtheriae*, 1000; *B. mesentericus*, 100; *Pseudomonas pyocanea*, *Proteus vulgaris*, and *Esch. coli*, no kill. Toxicity to *Staph. aureus* is high in water (LD 10) and in meat peptone broth (LD 20), but lower in serum (LD 100 p.p.m.). Mixed cultures influence toxicity; certain bacteria tend to inactivate I with respect to *Staph. aureus*. *Pseudomonas fluorescens*, and *B. radiobacter* are among them; some strains are more potent inactivators than others.

Julian F. Smith

KRASIL'NIKOV, N. A.

KRASIL'NIKOV, N. A. "Engrafting of New Virulent Characters to Nodule Bacteria and Some Other Bacteria," Mikrobiologiia, vol. 14, no. 4, 1945, pp. 230-236. 448.3 M582

SO: SIRA SI - 19-53, 15 December 1953

R of A.M.

KRASILNIKOV (N. A.) & KORENYAKO (A. I.). Антибактериальные свойства грибка **Aspergillus niger**. [Antibiotic properties of the fungus *Aspergillus niger*.]—Микробиология [*Microbiology*], xiv, 5, pp. 347–352, 1945. [English summary.]

Three out of eight strains of *Aspergillus niger* [*R.A.M.*, xxii, p. 13] were experimentally shown to produce an antibiotic active against Gram-positive and Gram-negative bacteria. It is named aspergillin. Its antibacterial activity was little or not at all affected by the presence of pus or blood serum and proved much more active than mycetin. Aspergillin resembles penicillin in its bactericidal properties but is distinguished from the latter by its inhibition of growth of Gram-negative bacteria and by its greater stability. It is said to be non-toxic for animals.

KRASIL'NIKOV, N. A.

KRASIL'NIKOV, N. A. , and RAZNITSINA, E. A. "Bacterial Method of Fusarium Control in Pine Seedlings," Agrobiologiia, no. 5-6, 1946, pp. 109-121. 20 Ag822

SO: SIRA SI - 19-53, 15 December 1953

KRASIL'NIKOV, N. A.
(Coauthor, GARKINA, N. R.) "Microbiologic factors of soil fatigue"

In studying a clover-fatigued soil of the experimental field of the Mairyasev Academy, it was established that the process of clover-fatiguing of this soil was caused by a biological factor.

Inhibitor microorganisms, bacteria and fungi, which lend toxic properties to the soil have been isolated.

Clover-fatigued soils are inactivated by heat treatment, and their toxicity can be restored by infecting them with these inhibitor microbes; without such infection, they remain sterile.

(From Mikrobiologiya, Vol IV, No 2, 1946)

CA

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

15

Influence of nodule bacteria on nitrogen fixation in clover under sterile culture conditions. N. A. Krasil'nikov and A. I. Korenyako (Inst. Microbiol., Moscow). *Mikrobiologiya* 15, 220-31(1946). An improved technique for plant culture in a sterile agar medium permits much faster study of N fixation than in pot grown plants. Inoculation of clover root with *Rhizobium trifolii* did not lead to significant N fixation and growth acceleration till 4-6 weeks after nodule formation. In both effects the peak was reached in the 3rd month of vegetation. Clover cultures lost N to the substrate up to a peak (end of 3rd month) of 10% in inoculated plants and 5% in controls (calcd. on total N content). Age of the plant and inoculation with active or inactive strains of *Rh. trifolii* did not noticeably influence total N content. Tables show effects of various strains on growth and N fixation in clover and alfalfa.

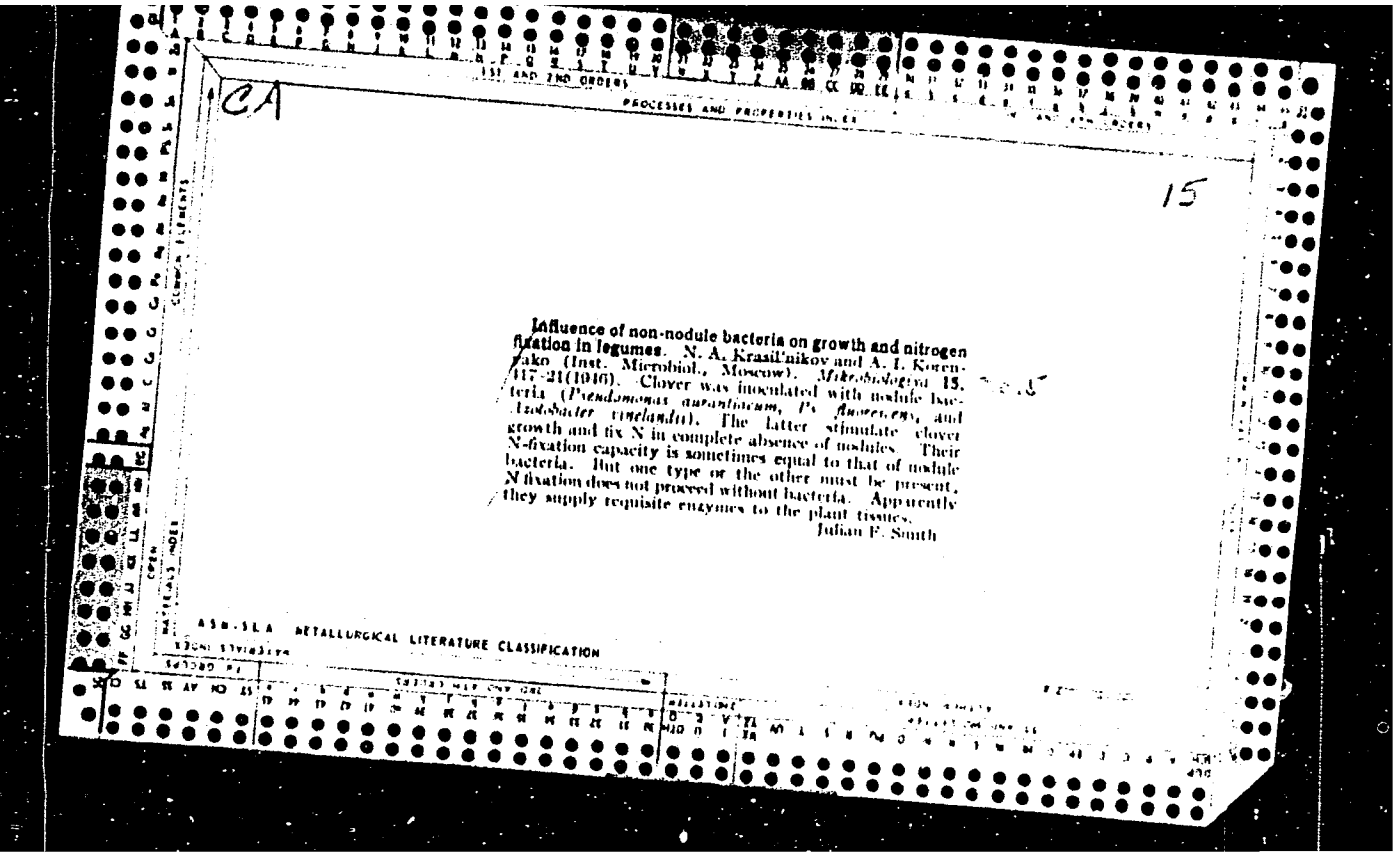
Julian F. Smith

nc 4

W-572

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000826110(



CA

15

Influence of non-nodule bacteria on growth and nitrogen fixation in legumes. N. A. Krasil'nikov and A. I. Koventsko (Inst. Microbiol., Moscow). *Mikrobiologiya* **15**, 117–21(1946). Clover was inoculated with nodule bacteria (*Pseudomonas aurantiacum*, *Ps. fluorescens*, and *Azotobacter vinelandii*). The latter stimulate clover growth and fix N in complete absence of nodules. Their N-fixation capacity is sometimes equal to that of nodule bacteria. But one type or the other must be present. N fixation does not proceed without bacteria. Apparently they supply requisite enzymes to the plant tissues.
Julian F. Smith

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

KRASIL'NIKOV, N. A.

KRASIL'NIKOV, N. A. , KORENYAKO, A. I. , and GARKINA, N. P. "Filterable Forms of Bacteria in the Soil," in Reports of the Scientific-Research Work for 1945, Department of Biological Science, Publishing House of the Academy of Science USSR, Moscow, 1947, pp.141-142. 511 Ak144

SO: SIRA SI - 19-53, 15 December 1953

KRASIL'NIKOV, N. A.

KRASIL'NIKOV, N. A. , and KORENYAKO, A. I. "Bactericidal Properties of Plant Sap," in Reports of the Scientific-Research Work for 1945, Department of Biological Science, Publishing House of the Academy of Science USSR, Moscow, 1947, pp. 146-147. 511 Ak144

SO: SIRA SI - 19-53, 15 December 1953

KRASIL'NIKOV, N. A.

"Antibiotic Properties of Microorganisms," ZhMEI, 4, 51, 1947

KRASIL'NIKOV, N. A.

USSR/Medicine - Antibiotics May 1947
Medicine - Penicillin

"Projects in the Study of Antibiotics," N. A. Kracil'nikov, Corr Mem, Acad Sci USSR, 6½ pp

"Vest Akad Nauk SSSR" No 5

Discovery of penicillin opened whole new field of study of microbe-antagonists as means to control pathogenic microbes. Since discovery of penicillin some 40 new substances discovered. These antibiotics are produced by actinomyces, bacteria, or fungus. Discusses antibiotics produced by actinomyces, like streptomycin; those produced by bacteria, like gramicidin; and those formed by fungus, like

54T63

KRASIL'NIKOV, N. A.

IA 29T64

USSR/Medicine - Bacteria - Azotobacter Sep/Oct 1947
Medicine - Nitrogen

"The Dispersion and Activity of Azotobacters," N. A. Krasil'nikov, 11 pp

"Agrobiologiya" No 5

Many factors influence the distribution and the acclimatization of nitrobacteria in the soil. The most important of these is the substrata of the soil. The localization of the dispersion of some types of nitrobacteria is noticed. Some soils can be toxic for nitrobacteria. The virulence and activity of nitrobacteria can change, depending upon which microbe mixture it inhabits.

LC

29T64

KRASIL'NIKOV, N. A.

USSR/Medicine - Antibiosis
Bactericides

Jan 1947

"The Antibiotic Properties of Microorganisms," N. A. Krasilnikov, 20 pp

"Zhur Obshch Biologii" Vol VIII, No 1

A study of the microbe-antagonists producing antibiotic substances (antibiotics) most widely distributed in nature and especially in the soil.

W-486

B-77915- 10 Aug 54

KRASIL'NIKOV, N.A.

KRASILJNIKOV N. A. The appearance of bacterial colonies Microbiologia, Moscow (U.S.S.R.) 1947, 16/5 (381-393) Illus. 3

The principles for higher organisms cannot be used for the definition of bacterial species: the morphology, cytology, genetics, history, evolution and geographical distribution offer but scanty distinguishing features. Biochemical methods have not developed satisfactorily until now. The great advantage is, however, the possibility of growing bacteria in pure culture on artificial media and of studying their physiology and variability. The immunological study of bacteria is to be adopted more widely in all braches of bacteriology, as it is used in medical microbiology. The most important method for recognition and definition of a bacterial species is the study of experimental variability. Variability is a common feature of every bacterial strain, and every species is a changing and developing system. The variants can be classified as to variety, race, form, morphological type or strain. The species (in a definition of Komarov) is the association of generations descended from a common ancestry, separated from other living beings under the influence of surroundings and by the struggle for existence. The author presents extensive experimental and literary material supporting his view.

Malek-Prague

KRASIL'NIKOV, N. A.

PA 78T57

USSR/Medicine - Penicillin
Medicine - Seeds

Apr 1948

"Does Penicillin Affect Seed Germination?" D. V. Lebedev, ½ p

"Priroda" No 4

D. F. Ribeiro showed that clinical penicillin greatly lowers growth of seeds. W. J. Smith, however, proved that this does not occur with pure penicillin. Work of N. A. Krasil'nikov, Soviet microbiologist, shows that microorganisms can act not only as antibiotics, but as biotics on higher plants: They should not be used before seeding without exhaustive preliminary investigations.

78T57

KRASIL'NIKOV, N. A.

PA 70T54

USSR/Medicine - Bacteriology
Medicine - Taxonomy

Mar/Apr 1948

"The Classification of Bacteria," N. A. Krasil'nikov, Inst of Microbiol, Acad Sci USSR, Moscow, 13 pp

"Mikrobiol" Vol XVII, No 2

Divides Protophyta into two subgroups: Schizophyceae and Schizomyceae, which in turn are divided into classes and orders. Submitted 12 Feb 1947.

70T54

KRASIL'NIKOV, N. A.

Manual for the Identification of Bacteria and Actinomycetes , 1949

(Opredelitel' Bakteriy i Aktinometsetov)

W-23995

KRASIL'NIKOV, N. A.

FA 2/5016

USSR/Agriculture - Crops, Rotation of Mar/Apr 49
Biology - Microorganisms, Soil

"Soil Microorganisms and Plant Yields," N. A. Krasil'nikov, Corr Mem, Acad Sci USSR, Inst of Microbiol, Acad Sci USSR, 10 pp

"Agrobiol" No 2

Discusses interaction of plants and bacteria. As choice of plants can change composition of microflora in soil, agricultural and microbiological specialists can render great assistance in the practice of crop rotation and in introducing proper methods of planting to protect fields.

2/5016

USSR/Medicine - Plant Immunity Apr 49
Medicine - Microorganisms

"Review of B. A. Rubin's and Ye. V. Artsikhovskaya's Book 'Biochemical Characteristics of Plants' Resistance to Microorganisms,'" N. A. Krasil'nikov, 1 p

"Priroda" No 4

Book (88 pp) is devoted to the problem of immunity or resistance of higher plants to phytopathogenetic microorganisms. Discusses mainly the substances formed during plant growth -- hormones, enzymes, antibacterial substances, etc. Book does not

57/49784

USSR/Medicine - Plant Immunity (Contd) Apr 49

stress effects of external factors, and does not evaluate adaptability of microbes to new conditions. However, it is of definite value in understanding plant immunity.

57/49784

KRASIL'NIKOV, N. A.

KRASIL'NIKOV, N.A.

23040 Pol' mikroorganizmov v vyvetrivanii gornykh porod. (Soobchch.) i N. A. Krasil'nikov. Mikroflora poverkhnostnogo sloya skal'nykh porod. Mikrobiologiya, 1949, vyp. 4, C. 318-23. - Bibliogr: 10 nazv. 10 nazv.

SO: LETOPIS' NO. 31, 1949

KRASIL'NIKOV, N. A.

Role of Microorganisms in the Weathering of Rocks II: Nidii of Microorganism Propagation on the Surface of Rocks.

Mikrobiologiya, No 6, 1949, pp 429-97

KRASIL'NIKOV, N. A.

PA 59/49T61

USSR/Medicine - Nitrobacter Jan/Feb 49
Medicine - Microbiology

"Do Nitrobacter Exist in Lichens?" N. A. Krasil'nikov, Inst of Microbiol, Acad Sci USSR, 4 pp

"Mikrobiol" Vol XVIII, No 1

Made studies of 250 types of lichens collected from various parts of the USSR. Used several methods to determine presence of nitrobacter: (1) agar wafers and Ashby and Bayerin's method, (2) Vinogradskiy's method with helevium wafers, (3) method of cumulative cultures, (4) media with supplementary nutritive substances, and (5) microscopic analysis. None revealed presence of nitrobacter. Nitrobacter introduced on lichens did not grow but died.

59/49T61

USSR/Medicine - Nitrobacter (Contd) Jan/Feb 49

Submitted 5 Oct 48.

59/49T61

CA

11d

Microbiological factors in depositing calcium carbonate on rocks. N. A. Krasil'nikov. *Mikrobiologiya* 18, 128-31(1949).—Cell counts (in millions per g.) in soils showing $CaCO_3$ deposits on rocks were 0.2-1.75 for calciferous bacteria and 1.3-8.5 for actinomycetes, of which calciferous species had counts only up to 0.25. Biogenic $CaCO_3$ deposits on granite, basalt, and tuff occur in several parts of Armenia. The calciferous organisms thrive especially in the rhizosphere of plants; deposits follow the rootlet patterns on rock surfaces. In artificial soil cultures, added sugar intensifies the fermentation.

Julian F. Smith

Inst. Microbiol. Acad Sci. USSR

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

KRASIL'NIKOV, N. A.

PA 50/49T62

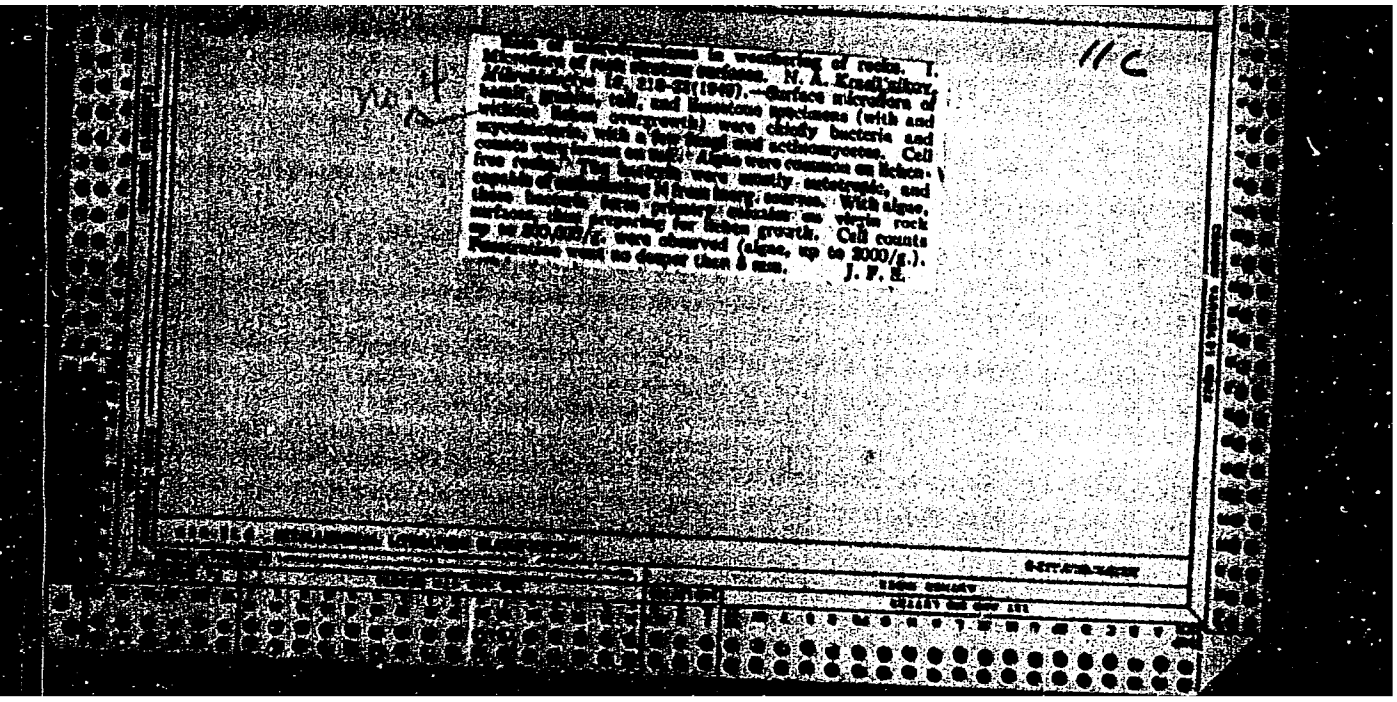
USSR/Medicine - Microorganisms May/Jun 49
Medicine - Microbiology

"Microflora of Lichens," N. A. Krasil'nikov, Inst of Microbiol, Acad Sci USSR, Moscow, 9 pp

"Mikrobiol" Vol XVIII, No 3

Discusses number of microorganisms found in 200 lichen specimens, their composition, including bacteria, microbacteria, actinomycetes, and fungi, and changes produced by various causes. Submitted 22 Oct 48.

50/49T62



11C

J. F. G.

KRASIL'NIKOV N. A. Actinomyces strains as streptomycin-producers, Microbiology, Moscow 1949, 18/5 (397-401) Illus. 4

From the comparison of the morphological and biochemical features of the streptomycin-producing strains of Actinomyces with Krajnski's original description of Actinomyces griseus, the author comes to the conclusion that the Waksman strains do not belong to the genus Actinomyces griseus Krajnski, but most probably to the genus Actinomyces globisporus, as a new form, A. gl. streptomycini. The main difference consists in some of the biochemical features and in the form of the spore-bearing hyphae, which are spiral in Act. griseus Krajnski, but straight in the streptomycin-producing strains.

Malek - Prague

So: Medical Microbiology and Hygiene, Section IV, Vol 3, No 1-6

KRASIL'NIKOV, N. A.

"Antagonistic Actinomyces and Antibiotic Substances," Moscow-Leningrad, 1950

KRASIL'NIKOV, N. A.

USSR/Medicine, Biology - Antibiotics Oct 51

"Biological Significance of Antibacterial Substances," N. A. Krasil'nikov, Inst of Microbiol, Acad Sci USSR

"Trudy Inst Mikrobiol" No 1, pp 142-154

In some cases the ability to produce antibiotics is firmly established in microorganisms by heredity and may then be expressed under conditions of isolated cultures on artificial nutritive media. Other microorganisms produce antibiotics only in the presence of competing species, either in mixed cultures (e.g., anthrax and B.coli) or in the presence of

209T83

USSR/Medicine, Biology - Antibiotics (Contd) Oct 51

products of the competitors' metabolism. There are also intermediate microorganisms exhibiting unstable properties as far as antagonism is concerned. Antagonistic properties serve as an aid in differentiating microorganisms which cannot be distinguished on the basis of morphological characteristics.

209T83

KRASIL'NIKOV, N. A. card 4

Izv, Biol. Ser., #4, '51, pp. 66-80

IV Wrote from Institute of Microbiology with A. I. KORENYAKO, N.I. NIKITINA, AND G. K. SKRYABIN: "Intra- and Inter-Species Relationships and Principles of Distinction of Forms of Microbe-Antagonists."

Conclusions:

1. Studies: Antagonistic relationships of actinomyces (1500 cultures) and bacteria (500 cultures) while cultivating them under conditions of isolated growth in media of artificial feeding.

2. It was established that the microorganism antagonism, existing through the assistance of special substances, chemicals of active anti-microbic substances, in other words, anti-biotics, occur only between cultures belonging to a different species.

3. There is no intra-species antagonism of microorganisms. We never observed a situation where cultures truly belonging to the same species supressed one another by their anti-biotic substances. This weapon was directed against alien organizms, against rivals of other species. 4. Microbe-antagonists act selectively -- suppressing some species and activiating others. 5. The microbe-antagonists not only do not antagonize some alien forms, but are able to live with them, mutually stimulating th e vitality of their cells.....8. A method was worked out and applied to a large collection of actinomyces and bacteria. In all cases, species which were well defined according to morphological-physiological features, gave clear indications of a homogeneousness of culture according to calculations by the experimantal method. 9. Externally similar cultures of actinomyces, coelicolor, A. globisporus, A. griseus and others, proved to be a mixture of several completely independent species. 10. In group I of sporidiferous bacteria, where the Bacillus mesentericus &B.subtili s are concerned, four species appeared. On basis of the antagonistic relationship the systematic categorizing of B.mycoides & B.licheniformis was established.....

KRASIL'NIKOV, N. A.

Does Intraspecies Antagonism Exist in Microorganisms (autoreview)

Priroda, No 7, 1951, pp59-60

KRASIL'NIKOV, N. A.

USSR/Medicine - Antibiotics Oct 51

"Review of N. A. Krasil'nikov's Book 'Antagonistically Acting Actinomycetes and Antibiotics,'" M. A. Litvinov

"Priroda" No 10, pp 90-94

Reviews at length the book on antibiotics for which Krasil'nikov was awarded the I. Mechnikov Prize by Acad Sci USSR in 1951. Published by Acad Sci USSR Publ House, Moscow/Leningrad, 1950, 303 pp.

211T80

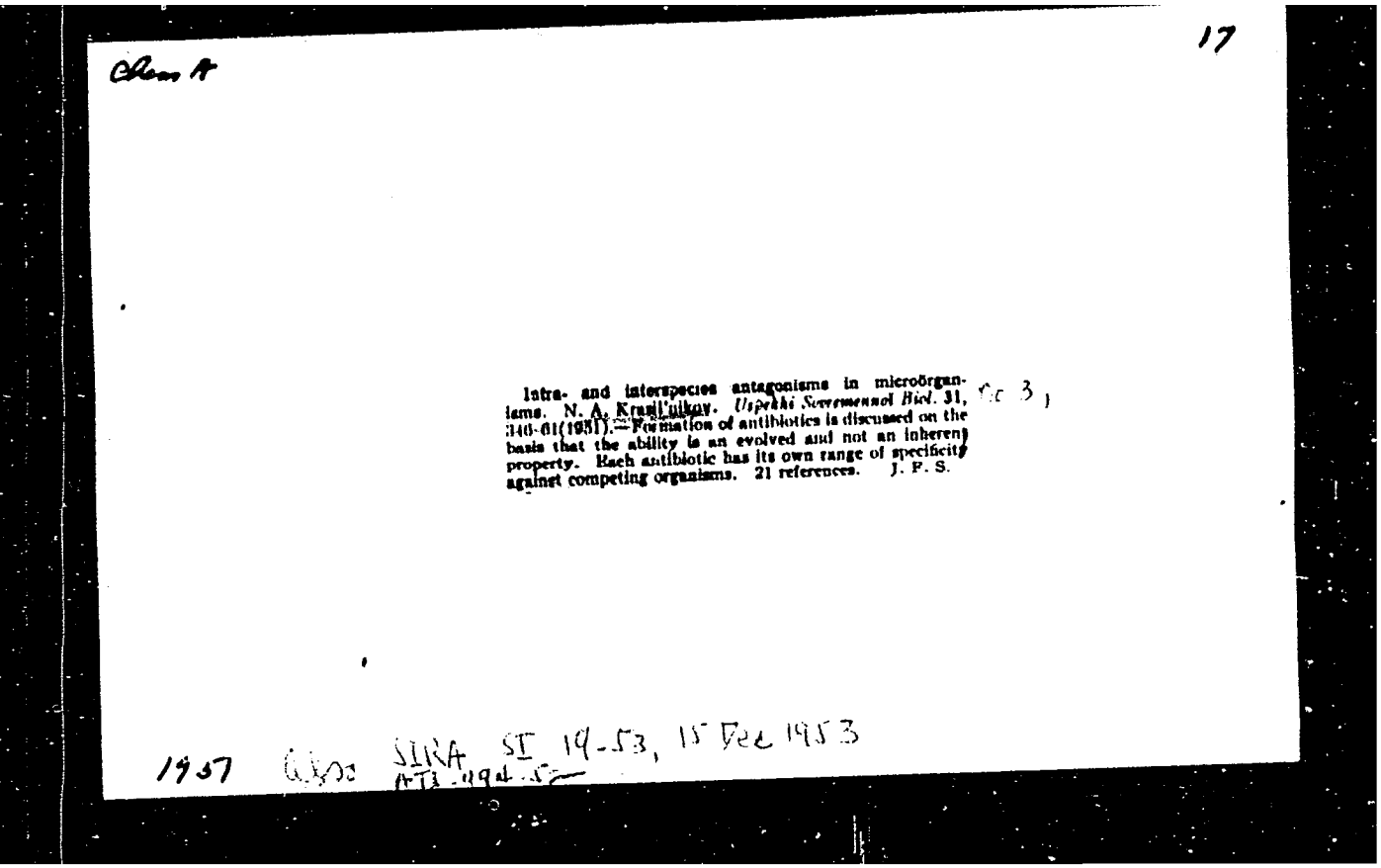
C.A.
1951

Biological Chemistry
II & Microbiology

How products of bacterial life processes influence the activity of antibiotics. N. A. Krasil'nikov and N. I. Nikitina (K. A. Timiryazev Acad. Agr., Moscow). *Mikrobiologiya* 20, 217-22(1951).—Mycetin (100 p.p.m.) and aspergillin (10,000 p.p.m.) were studied with *Staphylococcus aureus* in mixed cultures with *Proteus*, *Escherichia coli*, *Bacterium liquefaciens*, *Pseudomonas fluorescens*, *Pseudomonas fluorescens*, and *Mycobacterium album*. The kill was good with aspergillin; with mycetin it was poor in presence of *P. fluorescens*, fair in presence of *Proteus* and *E. coli*, good in other cultures. Filtrates from cultures of *E. coli*, *Serratia marcescens*, *P. fluorescens*, *Sarcina aurantiaca*, *Bacillus mesentericus*, and several other strains of bacteria were added to pure cultures of *S. aureus* in the presence of mycetin, penicillin, and streptomycin. The max. titer of the antibiotic permitting growth was then observed. Some filtrates were inert; some favored, and some inhibited, antibiotic action. Similar variability was observed in tests on accumulation of streptomycin in mixed cultures of *Actinomyces globisporus streptomycini*, with several strains of bacteria and bacilli. One strain of *Micrococcus* was included. Sensitivity to bacterial inactivation is high for penicillin, medium low for streptomycin and low for mycetin.

Julian P. Smith

Also: Excerpta Medica Sect. 4, Vol. 5, No. 1, p. 26. 1952



17

Class A

Intra- and interspecies antagonisms in microörganisms. N. A. Krasil'nikov. *Uspekhi Sovremennoi Biol.* 31, 340-61(1951).—Formation of antibiotics is discussed on the basis that the ability is an evolved and not an inherent property. Each antibiotic has its own range of specificity against competing organisms. 21 references. J. F. S.

(Sc 3)

1957 Class SIRA ST 19-53, 15 Dec 1953

KRASIL'NIKOV, N. A/

USSR/Medicine - Microbiology, Antagonism 1 Mar 51

"Intra- and Interspecies Antagonism of Microorganisms," N. A. Krasil'nikov, Corr Mem, Acad Sci USSR, Inst Microbiol, Acad Sci USSR

"Dok Ak Nauk SSSR" Vol LXXVII, No 1, pp 117-119

Among 1,500 cultures of various strains and species of actinomicetes and 500 cultures of bacteria belonging to various genera and species, no single instance of intraspecies antagonism was found, although microorganisms tested normally exhibit strong interspecies antagonism.

USSR/Medicine - Microbiology, Antagonism (Contd) 1 Mar 51

This includes powerful interspecies antagonists like A. longisporus and A. violaceus. Principle established here permits differentiation of species when ordinary morphol and physiol methods do not work.

KRASIL'NIKOV, N. A.

USSR/Medicine - Identification of Microorganisms 1 Apr 51

"Specificity of Interspecies Antagonism as a Principle of Identification and Classification of Microbiological Species," N. A. Krasil'nikov, Corr Mem, Acad Sci USSR, A. I. Korenyako, N. I. Nikitina, G. K. Skryabin

"Dok Ak Nauk SSSR" Vol LXXVII, No 4, pp 725-728

There is no intraspecies antagonism: Every species forms its own antibiotics, which as a rule are not duplicated by other species; 233 strains of A. albus having identical morphol and culture

179T4

USSR/Medicine - Identification of Microorganisms (Contd 1) 1 Apr 51

properties could be subdivided into (1) antibiotically active and inactive strains; (2) 3 mutually antagonistic groups evidently representing distinct species. Among 350 strains of A. globisporus, 4 species could be differentiated on basis of principle established. Similar differentiation could also be carried out on A. coeliclor, A. griseus, A. chromogenes, A. rosechromogenes. Among 175 strains assumed to be B. mesentericus, 23 strains had to be classified as belonging to the species B. subtilis, B. cereus, and B. idosus. Some strains of B. subtilis turned out to be

179T4

B. mesentericus or B. idosus. B. mesentericus and B. subtilis, which otherwise resemble each other, could be classified on basis of sp antagonism as belonging to the 4 species B. mesentericus, B. subtilis, B. catenula, and B. idosus. Similarly, differentiation between B. licheniformis and B. mycoides could be made. In the light of results obtained, one must conclude existing schemes of species classification require considerable revision. Method has many practical applications in agr, med, vet practice, etc.

179T74

USSR/Biology - Antibiotics 11 Aug 51

"Resorption By Plant Roots of Products of Metabolism of Microorganisms," N. A. Krasil'nikov, Corr Mem, Acad Sci USSR, Inst of Microbiol, Acad Sci USSR

"Dok Ak Nauk SSSR," Vol LXXIX, No 5, pp 879-882

Penicillin, streptomycin, and aureomycin when added to the plant growth medium are resorbed by the roots and pass into the stem and leaves; gramicidin and mycetin stay in the roots. Subtilin can be detected in roots of wheat and corn, but not in any part of pea and clover plants. Antibiotics which easily penetrate into all parts of the plant usually have

210T7

Card 1 of 2

USSR/Biology - Antibiotics 11 Aug 51
(Contd 1)

no harmful effect on them. Mycetin, pyocyanin, and gramicidin suppress the growth of plants and produce wilting and death. They can be detected in leaves only after the plants have died off completely. Antibiotics from cultures of rizosphere bacteria Bact. liquefaciens No 10 (I), Bact. nitrificans No 25 (II), Ps. fluorescens No 36, Ps. nitrificans No 102 (particularly I and II) are also resorbed by plants. They stimulate rather than suppress growth (particularly I and II in small doses). When cotton plant seeds are treated with

210T7

KRASIL'NIKOV, N. A.

KHASIL'NIKOV, N.A.

USSR/Biology - Antibiotics (Contd 2) 11 Aug 51

an antibiotic before planting this antibiotic can be detected for several days in stems and leaves of the sprouts. There is a possibility of establishing immunity and combating infections by treating seeds with antibiotics. This will be discussed in a subsequent paper.

210T7

KRASIL'NIKOV, N. A. Institute of Microbiology, Acad Sci USSR

KRASIL'NIKOV, N. A. , MIRZABEKIAN, R. O., and ASKORAVA, S. "Utilization of Antibiotics in Some Diseases of Plants (Pseudomonas malvarearum, Bacterium armeniaca, and Pseudomonas citriputeale)," Doklady Akademii Nauk SSSR, vol. 79, no. 6, August 21, 1951, pp. 1025-1027. 511 P444A

SO: SIRA SI - 19-53, 15 December 1953
Guides to Rus Sci. Per. Lit. No. 45; Brookhaven Nat. Lab., Feb 1952

KRASIL'NIKOV, N. A., ed.

Problems of microbiology in wine making and viticulture; proceedings of the Conference on Microbioloty. 1950 Moskva, Izd-vo Akad. nauk SSSR, 1952. 173p. (55-44260)

TP546.5.Y32

1. Wine and wine making-Bacteriology. I. Krasil'nikov, N.A., ed. II. Akademiia nauk SSSR. Otdelenie biologicheskikh nauk.

KRASIL'NIKOV, N. A.

PA 239T42

USSR/Medicine - Microbiology Aug 52

"The Morphology and Development of Streptococci," N. A. Krasil'nikov

"Trudy Inst Mikrobiol, Akad Nauk SSSR" No 2, 1952, pp 33-43

Data obtained by studying 3 strains of Str. lactis and 12 strains of Str. pyogenes showed that during the cultivation of streptococci on meat-peptone bouillon or meat-peptone-agar, the morphological structure and development of these microorganisms fully coincide with those of mycococci and mycobacteria. In the initial stage, the streptococci form long chains consisting of rod-shaped elements, which then change into cocci-shaped elements. The latter are formed as a result of division of the protoplasm of the rods into fragments (fragmentation spores). These fragmentation spores are formed in a manner similar to that observed in the case of mycobacteria and actinomycetes. Streptococci apparently are very close to actinomycetes and must be regarded as members of this class.

239T42

KRASIL'NIKOV, N.A.; KHUDYAKOVA, Yu.A.; BIRYUZOVA, V.P.

Flagellar apparatus in Azotobacter in electron microscopy. Trudy Inst. mikrobiol. no.2:44-50 '52. (MLRA 5:12)

(AZOTOBACTER,
flagella, electron microscopy)
(MICROSCOPY, ELECTRON,
of Azotobacter flagella)

KRASIL'NIKOV, N.A.

Microörganisms and soil productivity in the light of the teachings of V.R. Williams. Agrobiologiya '52, No.6, 57-72. (MLRA 6:1)
(CA 47 no.14:7144 '53)

1. Inst. Microbiol., Acad. Sci U.S.S.R., Moscow.

1. KRASIL'-NIKOV, N. A., PROF.

2. USSR (600)

4. Rabukhin, A. E.

7. "Streptomycin in the treatment of tuberculosis."
Rabukhin, A. Ye.
Sov. med. 16 No.9, 1952

9. Monthly List of Russian Accessions, Library of Congress, January 1953. Unclassified.

KRASIL'NIKOV, N. A.

USSR/Medicine - Antibiotics Jan/Feb 52

"Antibiotic Properites of Pad' [A Sugary Excretion of Plant Lice],"
N. A. Krasil'nikov, Inst of Microbiol, Acad Sci USSR

"Mikrobiologiya" Vol XXI, No 1, pp 19-22

Found that pad', which is found on trees in the vicinity of Moscow and is collected by bees as a material for honey production, serves as a breeding ground for the fungus Botrytis cinerea. This fungus evolves an antibiotic which is active against gram-pos bacteria. The antibiotic has a toxic effect on the trees where pad' occurs, particularly birches, causing necrosis of leaves.

223T33

KRASIL'NIKOV, N. A.

Plants - Nutrition

Role of microorganisms as supplementary plant nutrient. Usp. sovr. biol. 33 no. 3, 1952.

9. Monthly List of Russian Accessions, Library of Congress, September 1953, Uncl.

2

USSR/Biology, Agriculture - Antibiotics, Jul 52
Plant Diseases

"Antibiotics in the Cultivation of Plants," N. A. Krasil'nikov, Corr Mem, Acad Sci USSR

"Priroda" Vol 41, No 7, pp 17-27

Discusses the action of bacteria that protect plants against diseases and methods of practically employing these bacteria and the application of antibiotics resorbed by plants through the roots or introduced through the stem or leaves in order to combat diseases. Describes expts which he and his

229T8

KRASIL'NIKOV, N. A.

group carried out. Deals with diseases produced by the following agents: fusaria affecting flax, cereals, pine seedlings, tea plants, and cotton; Verticillium dahliae (cotton wilt); Bact. armeniaca (fruit wilt); Pseudom citriputeallis (bacterial necrosis of citrus fruit); Pseudom. malvacearum (gummosis of cotton); Botrytis cinerea (on lettuce); Alternaria solani (on tomatoes); Pseudom. translucens (on barley); bacteria exerting a toxic effect on clover and other plants. Mentions 1946 report on growth-stimulating effect of antibiotics on plants.

229T8

PA 245T1

KRASIL'NIKOV, N. A.

USSR/Biology, Agriculture - Enzymes 11 Nov 52

"Release of Enzymes by the Roots of Higher Plants," N. A. Krasil'nikov, Corr Mem Acad Sci USSR, Inst of Microbiol, Acad Sci USSR

"Dok Ak Nauk SSSR" Vol 87, No 2, pp 309-312

Reports experimental results which indicate that the roots of wheat, corn, and pea plants develop invertase, amylase, and protease. According to author's conclusions, the plants in question apparently release these enzymes into the soil.

245T1

KRASIL'NIKOV, N.A.

Microbe anatgonists and antibiotic substances in plant culture. Izvest. Akad. Nauk S.S.S.R., Ser. Biol. '53, No.2, 49-66. (MLRA 6:5)
(CA 47 no.16:8177 '53)

KRASILNIKOV, N.

" The roll of micro-organisms in the supplementary feeding of plants" p 67
(POSTEPY WIEDZY ROLNICZEJ, Vol. 5, no 1, Jan/Feb 1953 Warszawa, Poland)

SO: Monthly List of East European Accessions, Vol. 2, #8, Library of Congress August, 1953, Uncl.

KRASILNIKOV, N.

"Universal Rye, Prxodovmica, a winter wheat." p.88 (POSTEPY WIEDZY ROLNICZEJ, Vol. 5, no.1, Jan/Feb 1953, Warszawa, Poland)

SO: Monthly List of East European Accessions, Vol. 2, #8, Library of Congress August, 1953, Uncl.

KRASIL'NIKOV, N. A.

"The Distribution of Actinomycetes Antagonists in the Soil," by N.A.Krasil'nikov, A.I.Korenyako, O. I. Artamonova, Inst. of Microbiology, AS USSR, Mikorbiologiya 22, No 1, pp 3-10, 1953.

Authors describe their research on the microflora of the soil in various parts of USSR. Their preliminary survey established a predominance of actinomycetes in the gray desert soil (serozem), with antagonists affecting primarily gram-positive bacteria. The actinomycetes in question were also found in humus-covered soil. Authors assume that the development of actinomycetes antagonists is controlled primarily by factors of the outside envirnoment: climate, moisture, temperature, etc. 255T6

KRASIL'NIKOV, N. A.

USSR/Biology - Antibiotics, 21 Jun 53
Plant Diseases

"Inactivation by Antibiotics of the Toxin Formed by the Fungus Botrytis cinerea," N. A. Krasil'nikov, Corr Mem Acad of Sci USSR

DAN SSSR, Vol 90, No 6, pp 1159-1161

Tested the effect on the phytopathogenic fungus Botrytis cinerea of 50 antibiotic prepns derived from various species of actinomycetes. Found that some of these prepns counteracted the harmful effect of the toxin of Botrytis cinerea on birch leaves. Inactivation of the toxin was distinct

269T1

from the antibiotic effect on bacteria and Botrytis cinerea, i. e., it was caused by a substance other than the antibiotic.

Rec'd MLRA 6.6

KRASIL'NIKOV, N.A.

[Ro e of microbes in plant life] O roli mikrobov v zhizni rastenii. Stenogramma publichnoi lektsii, prochitannoi v TSentral'nom lektorii Obshchestva v Moskve. Moskva, Izd-vo "Znanie," 1954. 27 p. (Vsesoiuznoe obshchestvo po rasprostraneniiu politicheskikh i nauchnykh znanii, Ser. 3, no.6).

(Soil microorganisms) (Antibiotics) (MLRA 7:4)

KRASIL'NIKOV, N.A.

KIRCHENSTEINS, Augusts, 1872- ; ZDRODOVSKIY, P.F., redaktor; REDIN, Ye.I., redaktor; KRASIL'NIKOV, N.A., redaktor BUKIN, B.N., doktor biologicheskikh nauk, redaktor; GAYSINOVICH, A.Ye., kandidat biologicheskikh nauk, redaktor; NEVRAYEVA, N.A., tekhnicheskiy redaktor

[Problems in microbiology and immunology; selected works] Problemy mikrobiologii i immunologii; izbrannye trudy. Moskva, Izd-vo Akad. nauk SSSR., 1954. 208 p. (MLRA 7:12)

1. Chlen-korrespondent AN SSSR (for Krasil'nikov). 2. Deystvitel'nyy chlen AMN SSSR (for Zdrodovskiy)
(Microbiology) (Immunity)

Krasil'nikov, N. A.

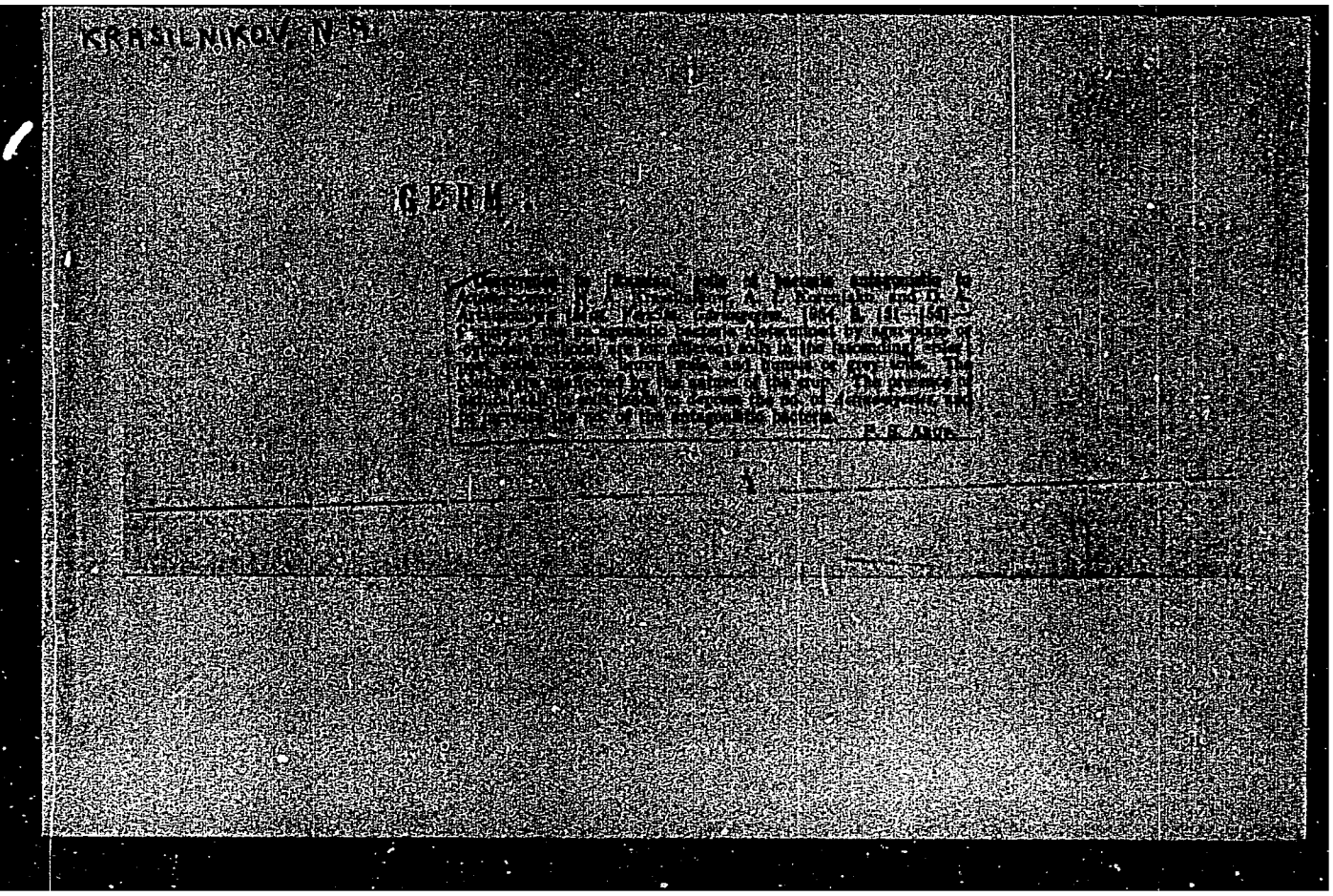
13601* (Use of Antibiotics in Plant Raising.) O primenenii antibiotikov v rastenievodstve. N. A. Krasil'nikov. *Vestnik Akademii Nauk SSSR*, 1954, no. 1, Jan., p. 30-37.
Effect on wheat and peas. Tables.

62

KRASILNIKOV, N.A.

Krasil'nikov (N. A.). Микроорганизмы и плодородие почв. [Micro-organisms and soil fertility.]—[illegible] Акад. Наук СССР [U.S.S.R. Acad. Sci. News—Bull. Acad. Sci. U.R.S.S.], 1944, 2, pp. 14-30, 7 figs., 1 graph, 1944.

In this paper on the relation between micro-organisms and soil fertility the author deals in general with the importance of the former in plant nutrition, their activating and inhibiting effects, the protective role of microbe-antagonists and the importance of plants in the microbiological processes in soils, quoting results from previous findings. It is concluded that more antibiotics are produced by micro-organisms in sterile than in non-sterile soil.



KRASIL'NIKOV, N.A.

Use of antibiotics in plant growing. Vest.AN SSSR 24 no.1:50-57 Ja '54. (MLRA 7:1)

1. Chlen-korrespondent Akademii nauk SSSR.
(Antibiotics) (Plants)

KRASIL'NIKOV, N.A. (Moscow).

Non-cellular forms in microorganisms. Usp.sovr.biol.37 no.1:22-32 Ja-F '54. (MLRA 7:2)

(Microorganisms) (Cells)

KRASIL'NIKOV, N.A.

Formation and accumulation of antibiotic substances in the soil. Dokl.AN SSSR 94 no.5:957-960 F '54. (MLRA 7:2)

1. Chlen-korrespondent Akademii nauk SSSR. 2. Institut mikrobiologii Akademii nauk SSSR. (Soil microorganisms) (Antibiotics)

KRASIL'NIKOV, N. A.

Microbe antagonists and antibiotic substances as factors of stability of plants to infections. N. A. Krasil'nikov. *Doklady Akad. Nauk S.S.S.R.* 94, 1177–80 (1954).—The subject of plant immunity to infectious is discussed generally. Expts. in which biomycidine, globisporin, or Terramycin were introduced into soil specimens in which expt. plants (peas, wheat, cotton) were grown indicate that the plants absorb antibiotics from either sterile or asterile soils, although the former appear to be a more effective source. In time the antibiotics disappear from the growing plants unless new doses are introduced into the soil. The antibiotics penetrate all plant tissues. Culturing of plants in soil which had been inoculated with actinomycetes showed again the elaboration of the antibiotics by the latter and the transfer of these to plant tissues, giving these definite antibacterial properties. Plant juice antibacterial activity varies considerably; it is most potent when the plants are grown on high humus soil in which microbe antagonists also grow best. Plants grown in open air are more active than those grown in greenhouses.

G. M. Kosolapoff

62

KRASILNIKOV, N. A., KUCHAYEVA, A. G., NIKITINA, N. I. and SKRYABIN, G. K.

"Microbes - Antagonists in Plant Diseases," a paper presented at the Antibiotics R Research Conf., Peiping, 1-6 December 1955.

In Library.
DB-38431

KRASILNIKOV, N. A.

"On the Classification of Actinomyces - Producers of Antibiotics," a paper presented at the Antibiotics Research Conf., Peiping, 1-6 December 1955.

In Library

DB-38431

"Soil - Climatic Factors, Metamorphosis of Microorganisms," same as above.

KRASILNIKOV, N. A.

"International Conference on Antibiotics, Washington," a paper presented at the Antibiotics Research Conf., Peiping, 1-6 December 1955

In Library
DB-38431
B

KRASIL'NIKOV, N.A., Member-Correspondent of the USSR Acad Sci

"On the Metabolism Changes in Soil Microorganisms"

Report given at jubilee held on June 20-21, 1955 in honor of 25th anniversary of foundation of Inst. of Microbiology, AS USSR

KRASIL'NIKOV, N.A.

RAUTENSHTEYN, Ya.I.; KRASIL'NIKOV, N.A., GOL'DIN, M.I., redaktor; GRAKOVA, Ye.D., tekhnicheskiy redaktor

[Bacteriophagy; general information on the phenomenon of phages and their significance for some industries] Bakteriofagiia; obshchie svedeniia o iavlenii fagii i ego znachenii v riade proizvodstv. Moskva, Izd-vo Akademii nauk SSSR, 1955. 141 p. (MLRA 9:1)

1. Chlen-korrespondent AN SSSR, (for Krasil'nikov)
(Bacteriophagy)

KRASIL'NIKOV, N.A.

USSR.

Toxicosis of podzol soils. N. A. Krasil'nikov, A. I. Korenyako, and T. G. Mirchink (Inst. Microbiol., Acad. Sci. U.S.S.R.). *Izvest. Akad. Nauk S.S.S.R., Ser. Biol.* 1958, No. 3, 38-48.—A review of existing data on toxicosis or "tiring" of podzol soils of nonchernozem types is given. The toxicosis which develops is active against both microorganisms and plants, the former being more susceptible. Tests with *Azotobacter*, wheat, and beets in podzol cultures show that the toxicosis development varies with soil quality, season of the year, amount of plant cover, and climatic conditions. The effect is greater in summer and fall than in winter or early spring; it is more pronounced in forest-covered plots than in meadows, and worked soils are less subject to it than the virgin forest soils. The causes are both chem. and biol., the latter being probably most important since the toxic soils carry high populations of inhibitor organisms: bacteria, actinomycetes, and fungi which secrete toxicants. G. M. Kosolapoff

KRASIL'NIKOV, N.A.

Soil and climatic factors in the variability of bacteria.
Izv. AN SSSR Ser.biol. no.5:72-79 S-O '55. (MLRA 9:2)

1.Chlen-korrespondent AN SSSR.
(Soils--Bacteriology)

KRISS, A.Ye; KRASIL'NIKOV, N.A.; MEYSEL', M.N.

Morozova-Vodianitskaia, Nina Vasil'evna, 1893-1955. Mikrobiologiia 24 no.2:258 Mr-Ap '55. (MLRA 8:7)
(OBITUARIES,
Morozova-Vodianitskaia, Nina V.)

KRASIL'NIKOV, N.A.

International conference on antibiotics held in Warsaw.
Mikrobiologiia 24 no.4:501-505 Jl-Ag '55 (MLRA 8:11)
(ANTIBIOTICES--CONGRESSES)

KRASIL'NIKOV, N.

IMSHENETSKIY, A; KASHKIN,P.; KONOKOTINA, A.; KRASIL'NIKOV, N.; KRISS, A.: KUDRYAVTSE, V.; LITVINOV, M.; MEYSEL', M.; RAUTENSHTEYN, Ya.

Aleksandra Alekseevna Bachinskaia; obituary. Mikrobiologiia 24 no.5:650-651 S-O '55. (MLRA 9:1)
(BACHINSKAIA, ALEKSANDRA ALEKSEEVNA, 1878-1955)

KRASIL'NIKOV, N. A.

USSR/ Biology - Antibiotics

Card 1/1 Pub. 124 - 16/30

Authors : Krasil'nikov, N. A., Memb. Corresp., Acad. of Sc., USSR

Title : International conference on antibiotics in Warsaw

Periodical : Vest. AN SSSR 25/7, 87 - 90, Jul 1955

Abstract : Notes are presented on the work of the International Conference on Antibiotics held in Warsaw-Poland during February 7 - 13, 1955. The conference attended by delegates from Bulgaria, Hungary, China, North Korea, Poland, Rumania, Czechoslovakia and the USSR discussed problems concerning mass production of such antibiotics as: penicillin, streptomycin, aureomycin, etc.

Institution : .....

Submitted : .....

KRASIL'NIKOV, N.A.

Induced variability in bacteria. Usp.sovr.biol.40 no.2:179-191
S-O '55. (BACTERIA) (MLRA 9:2)

KRASIL'NIKOV, N.A.

Collaboration of scientists in combating infections. Priroda 44 no.8:53-56 Ag '55. (MLRA 8:10)

1. Chlen-korrespondent Akademii nauk SSSR
(Antibiotics)

KRASIL'NIKOV, N.A.

USSR/Biology - Microbiology

Card 1/1 Pub. 22 - 41/47

Authors : Krasil'nikov, N. A., Memb. Corresp., Ac. Sc., USSR, and Bazzubenkova, A. P.

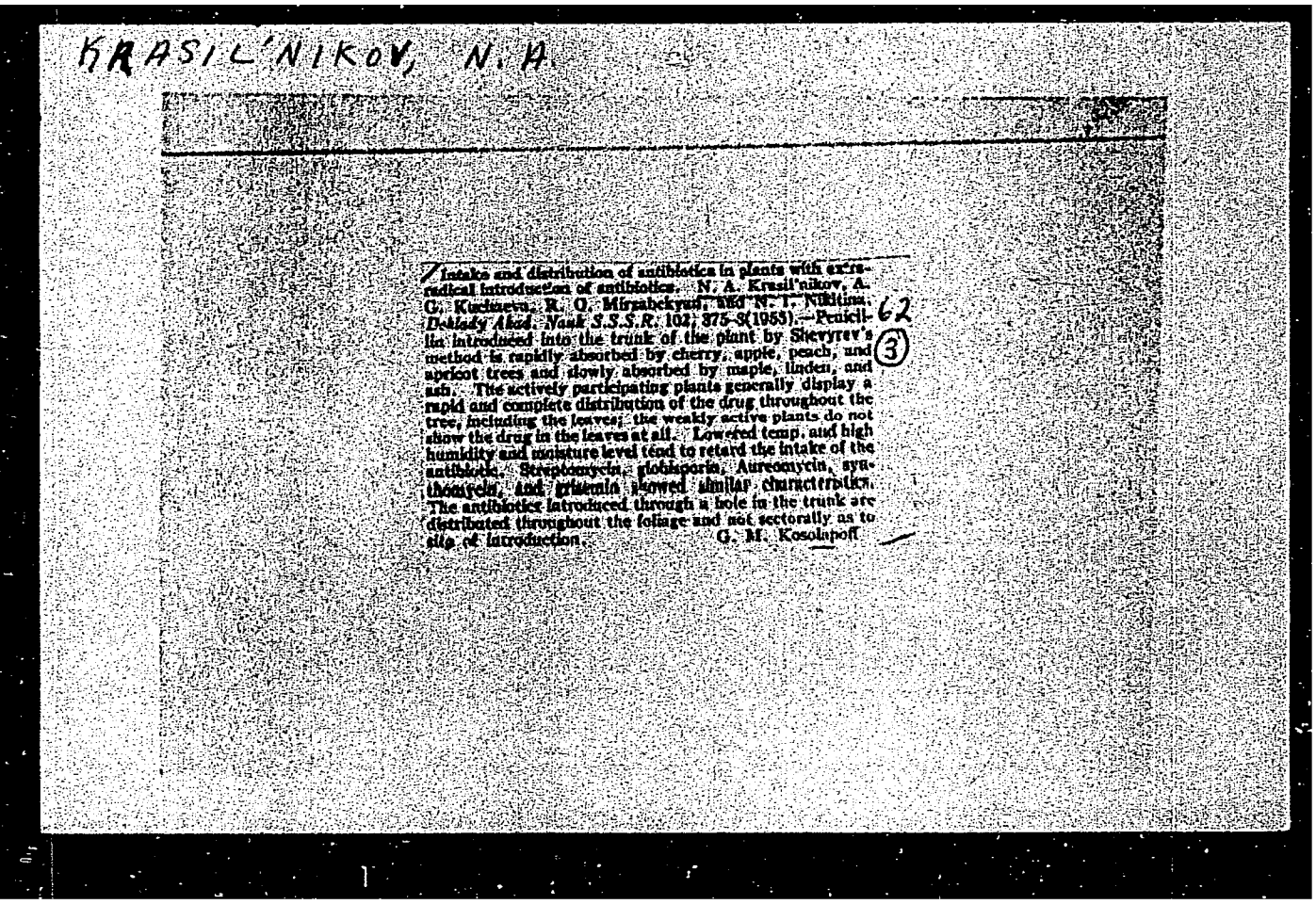
Title : Effect of bacteria on the assimilation of organic substances by plants

Periodical : Dok. AN SSSR 101/6, 1127 - 1130, Apr. 21, 1955

Abstract : It was established experimentally that many microorganism of the soil provide plants not only with mineral elements during the mineralization of plant and animal residues but also with different organic substances - products of natural metabolism. The importance of soil microflora on the assimilation of organic antibiotics by plants is explained. Two USSR references (1952-1953). Tables; graphs; illustration.

Institution : .....

Submitted : January 15, 1955



KRASIL'NIKOV, N. A.

Intake and distribution of antibiotics in plants with extra-radical introduction of antibiotics. N. A. Krasil'nikov, A. G. Kuchaeva, R. O. Mirzabekyan, and N. T. Nikitina. *Doklady Akad. Nauk S.S.S.R.* 102, 375-8(1955).—Penicillin introduced into the trunk of the plant by Shevyrev's method is rapidly absorbed by cherry, apple, peach, and apricot trees and slowly absorbed by maple, linden, and ash. The actively participating plants generally display a rapid and complete distribution of the drug throughout the tree, including the leaves; the weakly active plants do not show the drug in the leaves at all. Lowered temp. and high humidity and moisture level tend to retard the intake of the antibiotic. Streptomycin, globisporin, Aureomycin, synthomycin, and grisemin showed similar characteristics. The antibiotics introduced through a hole in the trunk are distributed throughout the foliage and not sectorally as to site of introduction. G. M. Kosolapoff

62

(3)

USSR/Microbiology - General Microbiology. F-1

Abs Jour : Ref Zhur - Biol., No 3, 1958, 9742

Author : Krasil'nikov, N.A.
Inst : -
Title : Classification of Actinomycetes which Produce Antibiotics.

Orig Pub : V sb.: Antibiotiki. Eksperim. klinich. izuch. M., 1956, 51-58

Abstract : The author believes that each species of microbe- antagonist inherently produces its own special antibiotic substances. External characteristics of actinomycetes may be indications only of large taxonomic categories. For purposes of a more accurate diagnosis the actinomycete biochemical properties and other phenomena must be utilized. Such indices can be the antibiotics. A purified antibiotic is inactive not only in regard to its own producer, but also in regard to all strains which belong to the same species. In the author's collection there are

Card 1/2

USSR/Microbiology - General Microbiology.

Abs Jour : Ref Zhur - Biol., No 3, 1958, 9742

more than 300 cultures of Actinomycetes globisporum streptomycini, isolated from different Soviet soils. They are all resistant to streptomycin, are not mutually antabonistic and form the same antibiotic-- streptomycin. Actinomycete-antagonists do not inhibit all alien species by their antibiotics, but only definite competitors in accordance with species specificity. The cited properties of antagonistic actinomycete interrelationships and the specificity of species reaction of antibiotic substances are quite fixed and may serve as good identifying indices in the species systematization and for antibiotic differentiation.

Card 2/2

KRASIL'NIKOV, N.A.

114. **Derivation and Use of the Antibiotic Grizin**

"The Antibiotic Grizin (Grizemin) and Its Producers," by N. A. Krasil'nikov and Corresponding Members of the Academy of Sciences USSR A. N. Belozerskiy, Ya. A. Rautenshteyn, A. I. Korenyako, N. I. Nikitina, A. I. Sokolova, and S. O. Uryson; Institute of Microbiology and Institute of Biochemistry imeni A. N. Bakh, Academy of Sciences USSR; Doklady Akademii Nauk SSSR, Vol 3, No 5, 11 Dec 56, pp 1117-1121

The derivation of the antibiotic Grizin or No 15 obtained from Actinomyces griseus is described. Producers of grizin are widely distributed in nature, but are obtained mainly from gray and chestnut brown soils.

The antibiotic grizin possesses a wide spectrum of action. It represses a number of gram-positive and gram-negative microbes and certain yeasts and fungi. Grizin preparations derived from strains No 15, 20, 70, 101, and 111 are not affected by either serum or pus, according to investigations conducted by V. V. Doromyslov of the Chair of Microbiology, Leningrad Chemicopharmaceutical Institute. Its relative toxicity was established at the G. N. Pershin Laboratory, All-Union Scientific-Research Chemicopharmaceutical Institute. The maximal dose of grizin preparations tolerated by mice was found to be from 0.0125 to 0.5 grams when administered for a period of 6-10 days. It is effective in the control of dysentery and certain plant diseases. (U)

KRASIL'NIKOV, N.A.

USSR/General Division - Congresses. Sessions. Conferences. A-4

Abs Jour : Ref Zhur - Biologiya, No 1, 1957, 92.

Author : N.A. Krasil'nikov
Inst :
Title : Antibiotics in Agriculture. At the International Conference in Washington.

Orig Pub : Privoda, 1956, No 4, 72-75.

Abst : A conference on antibiotics (A) was held in October 1955. Delegations from England, Denmark, Belgium, France, Spain, USSR, United States, and other countries took part in the conference. Problems connected with the application of A in plant growing, animal husbandry, with the aim to preserve food products were discussed. Considerable attention was given to problems bearing on animal husbandry (40 reports). It was indicated that supplementing the animals with A produced good results only at an early age; the addition of A to the feed of grown

Card 1/4

Abs Jour : Ref Zhur - Biologiya, No 1, 1957, 92.

cattle produces no effect (Mak-Zheynis, Kunga, and others). It was noted also that a positive effect is obtained by only small doses of A (1-10 g to 1 ton of feed); greater doses were found to be toxic and were ineffective as a growth stimulant. The effectiveness of the application of A depends simultaneously on the conditions in which the livestock is kept, the composition of the food rations, and other factors. A number of reports were devoted to the experimental investigation of the mechanism of the action of A (Baumann, Faynlyand, and others), the appearance in the organism of resistant strains of microbes after the prolonged action of A. Considerable attention was given to works on experiments with A used to preserve produce from spoilage; the investigation of parts and organs processed with A; methods of processing and the duration of the preservation of antibiotic substances in produce; and also the longevity of bacteria in the

Abs Jour : Ref Zhur - Biologiya, No 1, 1957, 92.

produce. It was noted that in order to preserve beef, A is introduced into the body of the animal 2 to 4 hours before its slaughter; information was given on the period of time eggs are preserved if A is introduced into the bodies of chickens before the eggs are laid (Rendal). A number of reports convincingly proved that the partaking of A with food by man presents no danger to immunity and does not lead to the formation of resistant strains. Little attention was given to the problem of the application of A in plant growing since insufficient data was available on this problem. A is widely utilized by American scientists (Zaumeyer, Yunga and others) in diseases of fruit and decorative trees. The following members of the Soviet delegation also addressed the conference: N.A. Krasil'nikov who spoke on the subjects "Antibiotics and their Utilization in Plant Growing in the USSR" and "Actinomyces, Producers of Antibiotics, and their

USSR/General Division - Congresses. Sessions. Conferences. A-4

Abs Jour : Ref Zhur - Biologiya, No 1, 1957, 92.

classification"; A.A. Polyakov, on the subject "Antibiotics and their Utilization in Veterinary Medicine in the USSR"; and Ye.N. Mischustin who spoke on the subject "Phenomenon of Antagonism and the Effectivenes of Bacterial Fertilizers".

Card 4/4

KRASIL'NIKOV, N.A., professor.

Antibiotics in stock raising. Nauka i pered. op. v sel'khoz. no.10:11-12 O '56. (MLRA 9:12)

I. Institut mikrobiologii AN SSSR.
(Antibiotics) (Veterinary medicine)

KRASIL'NIKOV, N.A.

USSR/Microbiology - General Microbiology F-1

Abs Jour : Referat Zhurn - Biol. No 16, 25 Aug 1957, 68357

Author : Krasilnikov, N.A., Bekhtereva, M.N.
Title : The Application of a Method of Fluorescent Microscopy for Identification of Live and Dead Actinomycete Cells.

Orig Pub : Mikrobiologiya, 1956, 25, No 3, 279-285

Abstract : Of the 15 species of actinomycetes investigated, belonging to 7 different groups, the brightest natural (primary) luminescence belonged to Actinomyces violaceus, A. aureofaciens and actinomycetes of the orange-red group. Fluorochroming by acridin orange (AO) does not permit any differentiation of a live mycelium of actinomycetes from a dead one; the color of luminescence depends on the concentration of the coloring agent, quantity of mycelium and other factors. AO is quite toxic to actinomycetes; in concentration of 1:10,000 it causes destruction of 95% of the culture. For differentiation of live from

Card 1/2 - 4 -

Abs Jour : Referat Zhurn - Biol. No 16, 25 Aug 1957, 68357

dead mycelium of actinomycetes, a fluorochroming by primulin was found useful, as suggested for other substances.

EXCERPTA MEDICA Sec.13 Vol.12/2 Derma-Venereo. Feb 58

KRASIL'NIKOV, N.A.

407. A CONFERENCE ON ANTIBIOTICS IN CHINA (Russian text) - Krasilnikov N.A. VESTN.AKAD.NAUK S.S.S.R. 1956, 26/6 (101-103)

In December 1955 a conference, sponsored by the Chinese Academy of Sciences, was held on antibiotics. Representatives of the USSR, Poland, Bulgaria, Rumania, Northern Korea, Mongolia, Vietnam, Indonesia and Burma were present. Forty Chinese and some of the foreign participants read their papers. The effort to establish their own production of antibiotics in China began in 1949. The production of penicillin began in 1952. The production of chlortetracycline, oxytetracycline, streptomycin and chloramphenicol is in preparation or has already begun. The conference made it evident that practical and research work in the field of antibiotics is done on a broad front in China in some 40 institutions by some 500 specialists.

Najman - Zagreb (L, 13, 2, 4)

KRASIL'NIKOV, N.A. (Moskva)

Alpine rock microflora and its nitrogen-fixing activity. Usp.sovr. biol. 41 no.2:177-192 Mr-Ap '56. (MLRA 9:8)
(ALPINE FLORA)
(MICRO-ORGANISMS, NITROGEN-FIXING)

KRASIL'NIKOV, N.A.

Antibiotics in agriculture at the international conference in Washington. Priroda 45 no.4:72-75 Ap '56. (MLRA 9:7)

1.Chlen-korrespondent Akademii nauk SSSR.
(Antibiotics) (Stock and stockbreeding)

Krasilnikov, N.A.

USSR/Plant Diseases. Diseases of Cultivated Plants. N

Abs Jour : Ref Zhur - Biologiya, No 16, 25 Aug 57, 69566

Author : Krasilnikov, N.A., Kublitskaya, M.A.
Title : Microbial Toxins and Antitoxins in Formation of Grapevine Chlorosis.

Orig Pub : Dokl. AN SSSR, 1956, 110, No 4, 703-705

Abstract : Chlorosis is manifested in the slight curling of leaves and their yellowing with a subsequent lightening, thin sprouts, shortened internodes and a large number of short suckers. The diseased vines lower the yield or become totally sterile. In Mid-Asian conditions, one of the causes of chlorosis is the poisoning of the vines by fungi toxins of genus Fusarium, which penetrate into the inner portion of the diseased plant roots. Most often, they are F. culmorum, F. solani, F. equiseti and scirpi. In healthy plants, these fungi concentrate in the inner bark portion of the root and do not

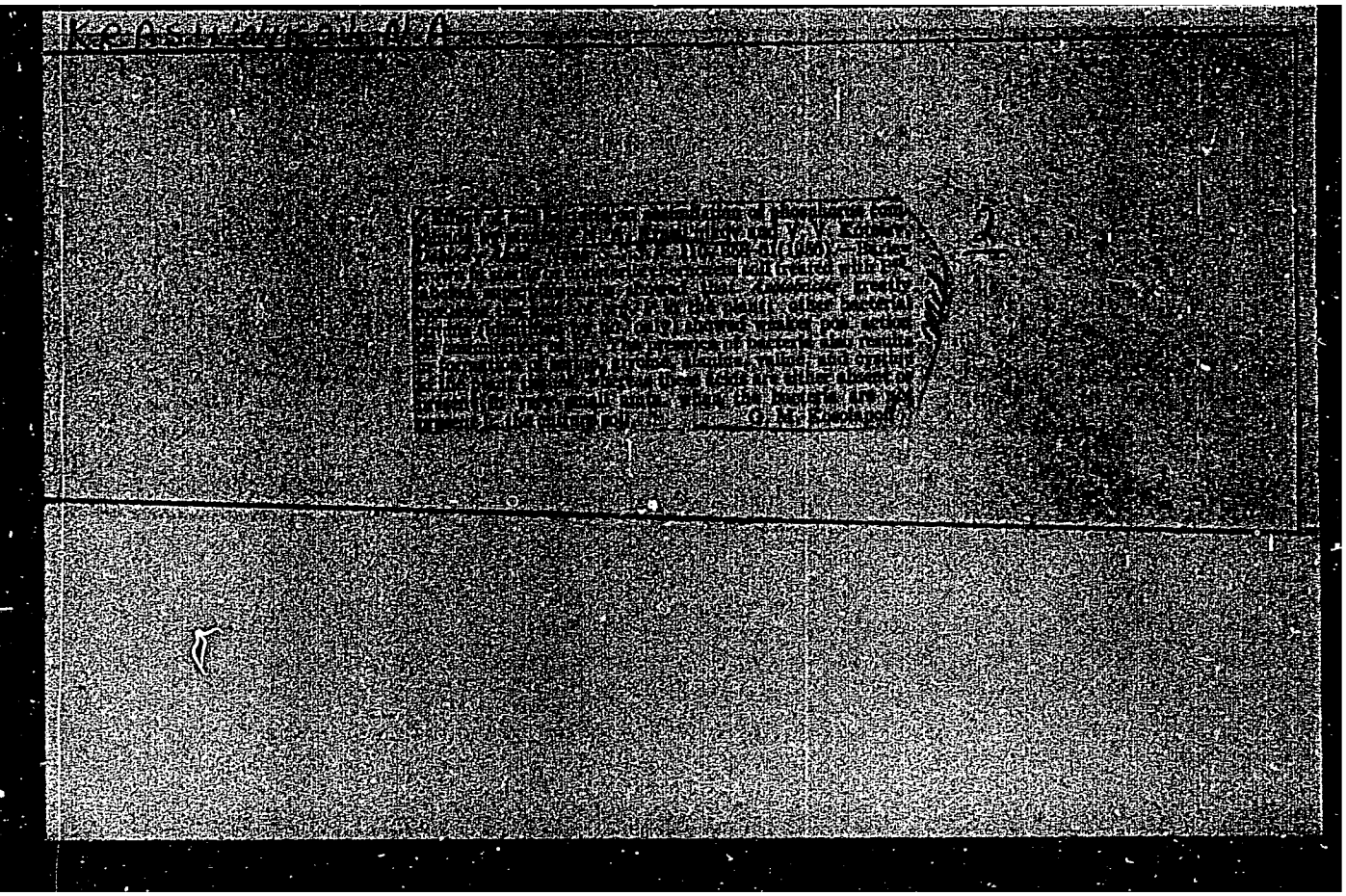
Card 1/1

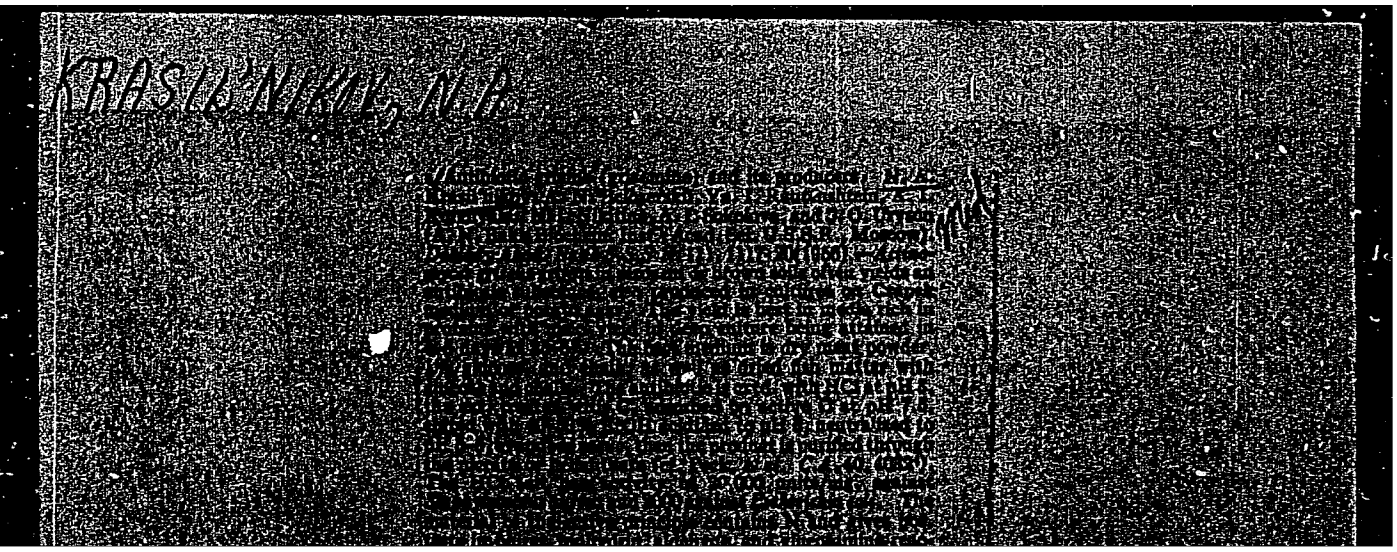
USSR/Plant Diseases. Diseases of Cultivated Plants. N

Abs Jour : Ref Zhur - Biologiya, No 16, 25 Aug 57, 69566

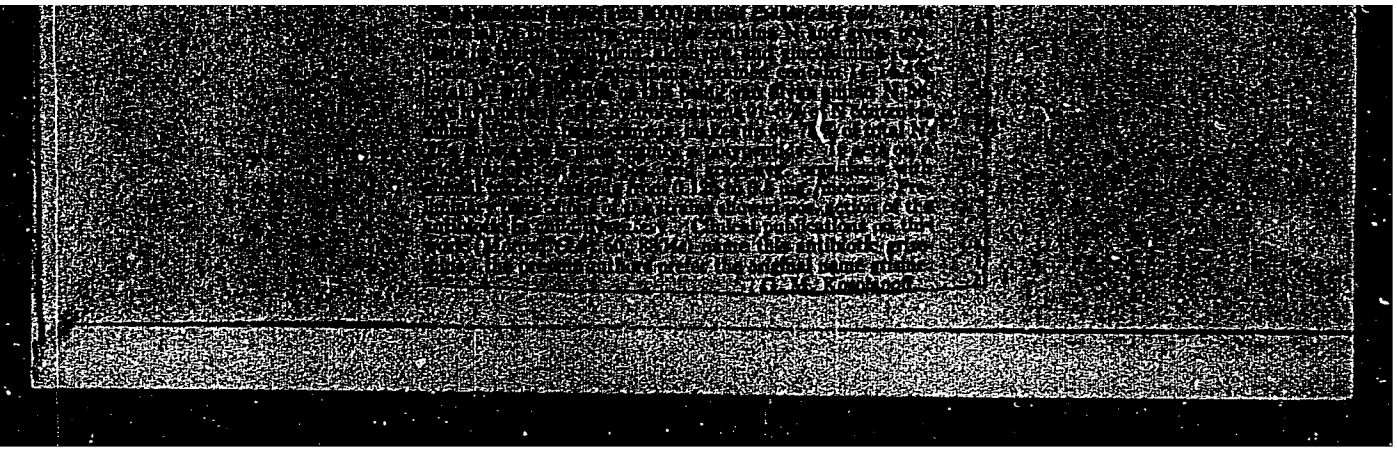
Abstract : penetrate deeply. When prolonged, the action of weak concentrations of the toxins on grape seedlings produced the symptoms of chlorosis. The typical indications of chlorosis also appeared as a result of artificial infection of 2 year old sets by a pure culture of the fungus placed in a cut in the bark. Of the isolated 356 actinomycete cultures, there were selected the strains A. griseus, A. globisporus, A. marginatus, A. sp., the natant liquid of which inactivates the fusarium toxins.

Card 2/2





APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000826110



APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000826110

Country : USSR
Category : Soil Science. Biology of Soils. J

Abs Jour : RZhBiol., No 6, 1959, No 24629

Author : Krasil'nikov, N. A.; Kotelev, V. V.; Sabel'nikova, V. I.; Sergeyeva, N. V.

Inst * Moldavian Branch of AS USSR.

Title : The Effect of Soil Bacteria on the Assimilation by Plants of Phosphorus from Tricalcium Phosphate.

Orig Pub : Izv. Mold. fil. AN SSSR, 1957, No. 9, (42), 127-133

Abstract : Barley, in sand cultivation with $Ca_3(PO_4)_2$ marked with P^{32} as a source of phosphorus, was grown under sterile conditions with the addition of bacteria cultures, which were isolated from the Moldavian soil and which decompose tricalcium phosphate. Bacterization increased P assimilation by the plants and their con-

Card : 1/2

Country : USSR
Category : Soil Science. Biology of Soils. J

Abs Jour : RZhBiol., No 6, 1959, No 24629

Author :
Inst :
Title :

Orig Pub :

Abstract : tent of water-soluble, protein and lipoidal P. Bacterization affected the qualitative composition and quantity of amino acids (they were analyzed chromatographically in an alcoholic extraction of the plants) and also increased the assimilation of P by barley in the soil culture. -- T. M. Bushuyeva

Card : 2/2

KRASIL'NIKOV, N. A. (Prof., Corres. Mbr. Acad. Sci. USSR)

"Concerning Classification of Actinomycetins -- Producers of Antibiotics,"

p. 51, Ministry of Health USSR Proceeding s of the Second All-Union Conference on Antibiotics, 31 May - 9 June 1957, Moscow, Medgiz, pp.405, 1957.
Under the section Experiments in the Study ofAntibiotics.

KRASIL'NIKOV, N.A.

E-1

USSR / Virology. Bacterial Viruses (Phages)

Abs Jour : Ref Zhur - Biol., No 2, 1958, No 4981

Author : Krasil'nikov, N.A., Kofanova, N.D.

Inst : Not given

Title : Effect of Antibiotics on Phages

Orig Pub : Antibiotiki, 1957, 2, No 1, 5-10

Abstract : Over 500 antinomycete cultures were tested, belonging to different groups and species, for the ability to produce substances which possess an antiphage activity with respect to a number of bacteriophages and actinophages. Nearly 90-98% of actinomycete cultures tested inhibited one or another actinophage, and ~ 41% bacteriophages. General mechanisms of actinomycete antiphage activity basically resemble the mechanisms of their antibacterial properties.

Card : 1/2

USSR / Virology. Bacterial Viruses (Phages) E-1

Abs Jour : Ref Zhur - Biol., No 2, 1958, No 4981

: Some actinomycetes had a wider spectrum of antiphage activity, others a more restricted one. No correlation was found between antiphage and antivirus activity of actinomycetes. Many antinomycetes which possess marked antiphage activity did not inhibit tested viruses of grippe, small pox, and Siberian encephalitis. In the author's opinion, antiphage properties cannot serve as an index of activity of a given substance against viruses in general.

Card : 2/2

KRASIL'NIKOV, N.A.

KRASIL'NIKOV, N.A.; BELOZERSKIY, A.N.; RAUTENSHTEYN, Ya.I.; KORENYAKO, A.I.; NIKITINA, N.I.; SOKOLOVA, A.I.; URYSON, S.O.

The antibiotic grisein (grisemin) and its producers [with summary in English]. Mikrobiologiia 26 no.4:418-425 Jl-Ag '57. (MIRA 10:12)

1. Institut mikrobiologii AN SSSR i Institut biokhimii im. A.N.Bakha AN SSSR, Moskva.
(ANTIBIOTICS,
grisemin, prod. organisms (Rus))